This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

□ BLACK BORDERS
□ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
□ FADED TEXT OR DRAWING
□ BLURRED OR ILLEGIBLE TEXT OR DRAWING
□ SKEWED/SLANTED IMAGES
□ COLOR OR BLACK AND WHITE PHOTOGRAPHS
□ GRAY SCALE DOCUMENTS
□ LINES OR MARKS ON ORIGINAL DOCUMENT
□ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY

IMAGES ARE BEST AVAILABLE COPY.

OTHER:

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.

Titles of Most Frequently Occurring Classifications of Patents Returne d

From A Search of 09980220 on October 15, 2004

```
455/186.1
                  (11 OR, 23 XR)
                 455 :
         Class
                        TELECOMMUNICATIONS
         455/130
                       RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY
                              CONVERTER
         455/150.1
                       .Signal selection based on frequency (e.g.,
                             tuning)
         455/179.1
                       .. Channel or station selection
         455/185.1
                       ... With channel information storage
         455/186.1
                       ....With memory control or programming
2.7
   455/45
                  (7 OR, 20 XR)
         Class
                 455 : TELECOMMUNICATIONS
         455/39
                       TRANSMITTER AND RECEIVER AT SEPARATE STATIONS
         455/42
                       .Frequency or phase modulation
         455/45
                       ..Via subcarrier
14
    455/161.2
                  (3 OR, 11 XR)
         Class
                 455 : TELECOMMUNICATIONS
         455/130
                       RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY
                             CONVERTER
         455/150.1
                       .Signal selection based on frequency (e.g.,
                            tuning)
         455/161.1
                       .. Frequency scanning
         455/161.2
                       ...With processor control
11 455/161.3
                  (4 OR, 7 XR)
                 455 : TELECOMMUNICATIONS
         Class
                       RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY
         455/130
                             CONVERTER
         455/150.1
                       .Signal selection based on frequency (e.g.,
                            tuning)
         455/161.1
                       .. Frequency scanning
         455/161.3
                       ... Using signal strength or quality
7 340/825.72
                 (0 OR, 7 XR)
        Class
                 340 : COMMUNICATIONS: ELECTRICAL
         340/825
                       SELECTIVE
         340/825.71
                       .Frequency responsive actuation
         340/825.72
                      ..Wireless link
7 370/343
                 (2 OR, 5 XR)
                 370 : MULTIPLEX COMMUNICATIONS
         Class
```

	370/310 370/343	09980220_CLSTITLES COMMUNICATION OVER FREE SPACE .Combining or distributing information via frequency channels
7		OR, 5 XR) : TELECOMMUNICATIONS RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER
	455/226.1	.Measuring or testing of receiver
7	Class 455 455/3.01	OR, 1 XR) : TELECOMMUNICATIONS WIRELESS DISTRIBUTION SYSTEM .Combined with diverse art device (e.g., audio/sound or entertainment system)
6	340/825	: COMMUNICATIONS: ELECTRICAL SELECTIVE .Having indication or alarm (e.g., location indication)Code responsive (i.e., paging)
6	Class 375	OR, 5 XR) : PULSE OR DIGITAL COMMUNICATIONS APPARATUS CONVERTIBLE TO ANALOG
6		OR, 4 XR) : PULSE OR DIGITAL COMMUNICATIONS TRANSCEIVERS
6	375/285 (3 Class 375 375/259	OR, 3 XR) : PULSE OR DIGITAL COMMUNICATIONS SYSTEMS USING ALTERNATING OR PULSATING CURRENT
	375/285	.Antinoise or distortion
6		OR, 5 XR) : PULSE OR DIGITAL COMMUNICATIONS RECEIVERS

375 : PULSE OR DIGITAL COMMUNICATIONS

.Automatic frequency control

(0 OR, 6 XR)

RECEIVERS

375/344

Class 375/316

375/344

```
09980220 CLSTITLES
6 455/67.11
                (1 OR, 5 XR)
        Class
               455 : TELECOMMUNICATIONS
        455/39
                     TRANSMITTER AND RECEIVER AT SEPARATE STATIONS
        455/67.11 . Having measuring, testing, or monitoring of
                         system or part
5 340/825.49
                (0 \text{ OR}, 5 \text{ XR})
        Class
                340 : COMMUNICATIONS: ELECTRICAL
        340/825
                      SELECTIVE
        340/825.36
                     .Having indication or alarm (e.g., location
                          indication)
        340/825.49
                    ..Location indication
  348/473
                (1 \text{ OR}, 4 \text{ XR})
        Class 348: TELEVISION
        348/469
                     FORMAT
        348/473
                    .Including additional information
5
  348/607
                 (1 OR, 4 XR)
        Class
                348 : TELEVISION
        348/571
                     IMAGE SIGNAL PROCESSING CIRCUITRY SPECIFIC TO
                          TELEVISION
        348/607
                      .Noise or undesired signal reduction
5 348/734
               (3 OR, 2 XR)
        Class
                348 : TELEVISION
        348/725
                    RECEIVER CIRCUITRY
        348/734
                    .Remote control
5 375/150
               (1 \text{ OR}, 4 \text{ XR})
        Class
                375 : PULSE OR DIGITAL COMMUNICATIONS
        375/130
                     SPREAD SPECTRUM
        375/140
                     .Direct sequence
        375/147
                    ..Receiver
        375/150
                     ...Correlation-type receiver
5 375/222
                (5 OR, 0 XR)
       Class
               375 : PULSE OR DIGITAL COMMUNICATIONS
        375/219
                     TRANSCEIVERS
        375/222
                    .Modems (data sets)
5 375/296
                 (1 OR, 4 XR)
       Class
               375 : PULSE OR DIGITAL COMMUNICATIONS
        375/295
                     TRANSMITTERS
        375/296
                     .Antinoise or distortion (includes
```

predistortion)

_		09980220_CLSTITLES
5	455/154.1 (0	OR, 5 XR)
	455/130	: TELECOMMUNICATIONS RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY
	133/130	CONVERTER
	455/150.1	.Signal selection based on frequency (e.g.,
	455/154 1	tuning)
	455/154.1	With indication of frequency, channel, or selector condition (e.g., tuning aid)
		beleevel somalelem (evgv, cuming ara)
5	455/158.4 (0	
		: TELECOMMUNICATIONS
	455/130	RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER
	455/150.1	.Signal selection based on frequency (e.g.,
	·	tuning)
	455/154.1	With indication of frequency, channel, or
	455/158.1	<pre>selector condition (e.g., tuning aid)Channel index indication</pre>
	455/158.4	With multiple display functions
5	455/158.5 (2	
	Class 455 455/130	: TELECOMMUNICATIONS RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY
	433/130	CONVERTER
	455/150.1	.Signal selection based on frequency (e.g.,
	455/154 1	tuning)
	455/154.1	With indication of frequency, channel, or selector condition (e.g., tuning aid)
	455/158.1	Channel index indication
	455/158.5	Non-numeric display (e.g., call letters)
_	455/000	
5	455/228 (1 Class 455	
	455/130	RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY
		CONVERTER
	455/227	Responsive to an input signal of particular
	455/228	<pre>predetermined frequencyResponsive to specified modulation (e.g.,</pre>
	433/220	call alarm, Conelrad)
5	•	OR, 5 XR)
	Class 455	
	455/39	TRANSMITTER AND RECEIVER AT SEPARATE STATIONS
	455/68	.With control signal
	455/70	Receiver control signal originates at messag

transmitter

е

Page 4

5 455/73 (0 OR, 5 XR)Class 455: TELECOMMUNICATIONS 455/73 TRANSMITTER AND RECEIVER AT SAME STATION (E.G. TRANSCEIVER) 340/7.27 (2 OR, 2 XR) Class 340 : COMMUNICATIONS: ELECTRICAL 340/825 SELECTIVE 340/825.36 .Having indication or alarm (e.g., location indication) ...Code responsive (i.e., paging) 340/7.2 340/7.24 ... Transmitting configuration 340/7.25Multiple transmitters 340/7.27Zoned (0 OR, 4 XR) 340/7.31 Class 340: COMMUNICATIONS: ELECTRICAL 340/825 SELECTIVE 340/825.36 .Having indication or alarm (e.g., location indication) ..Code responsive (i.e., paging) 340/7.2 340/7.28 ... Paging terminal (i.e., element prior to the transmitter) 340/7.31 Message input 340/825.02 (3 OR, 1 XR) Class 340 : COMMUNICATIONS: ELECTRICAL 340/825 SELECTIVE 340/825.02 .Tree or cascade 348/21 (1 OR, 3 XR) Class 348 : TELEVISION 348/21 PLURAL TRANSMITTER SYSTEM CONSIDERATIONS (E.G. INTERFERENCE REDUCTION) 348/461 (0 OR, 4 XR) Class 348 : TELEVISION 348/461 NONPICTORIAL DATA PACKET IN TELEVISION FORMAT (0 OR, 4 XR) 348/725 348 : TELEVISION Class 348/725 RECEIVER CIRCUITRY 4 370/204 (2 OR, 2 XR)

	Class	370	09980220_CLSTITLES : MULTIPLEX COMMUNICATIONS
	370/203		GENERALIZED ORTHOGONAL OR SPECIAL MATHEMATICAL TECHNIQUES
	370/204		.Plural diverse modulation techniques
4		370	OR, 1 XR) : MULTIPLEX COMMUNICATIONS COMMUNICATION OVER FREE SPACE .Message addressed to multiple destinations
4	370/487 Class 370/473 370/480 370/485 370/486 370/487	370	OR, 3 XR) : MULTIPLEX COMMUNICATIONSTransmission of a single message having
4	370/522 Class 370/473 370/498	370	: MULTIPLEX COMMUNICATIONSTransmission of a single message having multiple packets .Combining or distributing information via tim
	370/522		channelsSignaling (ancillary to main information)
4		375	OR, 3 XR) : PULSE OR DIGITAL COMMUNICATIONS MULTILEVEL
4	375/346 Class 375/316 375/346		OR, 3 XR) : PULSE OR DIGITAL COMMUNICATIONS RECEIVERS .Interference or noise reduction
4	380/34 Class 380/255 380/270 380/33 380/34		OR, 2 XR) : CRYPTOGRAPHY COMMUNICATION SYSTEM USING CRYPTOGRAPHY .Wireless communicationUsing plural paths or channelsPlural carrier frequencies

е

4 398/76 (3 OR, 1 XR) Class 398: OPTICAL COMMUNICATIONS

	398/43 398/76	09980220_CLSTITLES MULTIPLEX .Subcarrier multiplexing
4	455/91	: TELECOMMUNICATIONS
4	455/12.1 (0 Class 455 455/7 455/11.1 455/12.1	: TELECOMMUNICATIONS CARRIER WAVE REPEATER OR RELAY SYSTEM (I.E., RETRANSMISSION OF SAME INFORMATION) .Portable or mobile repeater
4	455/134 (0 Class 455/130 455/132 455/133 455/134	: TELECOMMUNICATIONS RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER
4	455/137 (1 Class 455 455/130 455/132 455/137	: TELECOMMUNICATIONS RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER
4	455/260 (2 Class 455 455/130 455/230 455/255 455/257 455/258 455/259 455/260	: TELECOMMUNICATIONS
4	•	OR, 4 XR) : TELECOMMUNICATIONS RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER .Combined with diverse art device

455/345 ..With vehicle

4 455/503 (0 OR, 4 XR)

Class 455: TELECOMMUNICATIONS

455/39 TRANSMITTER AND RECEIVER AT SEPARATE STATIONS

455/500 .Plural transmitters or receivers (i.e., more than two stations)

455/501 .. Noise, distortion, or singing reduction

455/502 ...Synchronized stations

455/503Simulcast system

4 455/67.13 (0 OR, 4 XR)

Class 455: TELECOMMUNICATIONS

455/39 TRANSMITTER AND RECEIVER AT SEPARATE STATIONS

455/67.11 .Having measuring, testing, or monitoring of

system or part

455/67.13 .. Noise, distortion, or unwanted signal

detection (e.g., quality control, etc.)

3 128/903 (0 OR, 3 XR)

Class 128 : SURGERY

128/903 RADIO TELEMETRY

3 329/300 (2 OR, 1 XR)

Class 329 : DEMODULATORS

329/300 FREQUENCY SHIFT KEYING OR MINIMUM SHIFT KEYING

DEMODULATOR

3 340/531 (0 OR, 3 XR)

Class 340: COMMUNICATIONS: ELECTRICAL

340/500 CONDITION RESPONSIVE INDICATING SYSTEM

340/531 .With particular coupling link

3 340/7.43 (0 OR, 3 XR)

Class 340: COMMUNICATIONS: ELECTRICAL

340/825 SELECTIVE

340/825.36 .Having indication or alarm (e.g., location

indication)

340/7.2 ...Code responsive (i.e., paging)

340/7.43 ...Particular message and address format (e.g.

POCSAG, FLEX, etc.)

3 340/825.69 (0 OR, 3 XR)

Class 340: COMMUNICATIONS: ELECTRICAL

340/825 SELECTIVE

	340/825.57 340/825.62 340/825.69	Serial
3		OR, 3 XR) : COMMUNICATIONS: ELECTRICAL VEHICLE POSITION INDICATION
3	342/118	OR, 1 XR) : COMMUNICATIONS: DIRECTIVE RADIO WAVE SYSTEMS AND DEVICES DETERMINING DISTANCE .With frequency modulation
3	342/457 (0 Class 342 342/350	OR, 3 XR) : COMMUNICATIONS: DIRECTIVE RADIO WAVE SYSTEMS AND DEVICES DIRECTIVE .Position indicating (e.g., triangulation)
3		OR, 3 XR) : TELEVISION DIVERSE DEVICE CONTROLLED BY INFORMATION EMBEDDED IN VIDEO SIGNAL
3	348/469	: TELEVISION FORMAT .Including additional information
3		OR, 2 XR) : TELEVISION BASIC RECEIVER WITH ADDITIONAL FUNCTION .For display of additional informationReceiver indicator (e.g., on screen display)
3		OR, 2 XR) : MULTIPLEX COMMUNICATIONS COMMUNICATION OVER FREE SPACE .Combining or distributing information via tim
-	370/350	channelsSynchronization

Page 9

е

3	370/475 Class 370/473 370/475	370	: MULTIPLEX COMMUNICATIONS
3	370/483 Class 370/473 370/480 370/483	370	: MULTIPLEX COMMUNICATIONS
3	372/96 Class 372/92 372/96	372	: COHERENT LIGHT GENERATORS PARTICULAR RESONANT CAVITY
3	375/130 Class 375/130	375	: PULSE OR DIGITAL COMMUNICATIONS
3	375/142 Class 375/130 375/140 375/141 375/142	375	: PULSE OR DIGITAL COMMUNICATIONS SPREAD SPECTRUM .Direct sequenceEnd-to-end transmission system
3	375/259 Class 375/259	375	: PULSE OR DIGITAL COMMUNICATIONS
3	375/260 Class 375/259	375	OR, 3 XR) : PULSE OR DIGITAL COMMUNICATIONS SYSTEMS USING ALTERNATING OR PULSATING CURRENT
	375/260		.Plural channels for transmission of a single pulse train
3	375/300 Class 375/295 375/300	375	OR, 3 XR) : PULSE OR DIGITAL COMMUNICATIONS TRANSMITTERS .Amplitude modulation

375/324 (2 OR, 1 XR)

```
09980220 CLSTITLES
       Class
               375 : PULSE OR DIGITAL COMMUNICATIONS
       375/316
                    RECEIVERS
                    .Angle modulation
       375/322
       375/324
                     ..Particular demodulator
  375/350
               (0 OR, 3 XR)
               375 : PULSE OR DIGITAL COMMUNICATIONS
       Class
       375/316
                    RECEIVERS
       375/346
                     .Interference or noise reduction
                    ..By filtering (e.g., digital)
       375/350
3 385/14
               (0 OR, 3 XR)
               385 : OPTICAL WAVEGUIDES
       Class
       385/14
                     INTEGRATED OPTICAL CIRCUIT
3
 386/83
               (3 OR, 0 XR)
       Class
               386: TELEVISION SIGNAL PROCESSING FOR DYNAMIC
                       RECORDING OR REPRODUCING
       386/46
                     PROCESSING OF TELEVISION SIGNAL FOR DYNAMIC
                         RECORDING OR REPRODUCING
       386/83
                     .Including programmable apparatus
  398/106
               (1 OR, 2 XR)
       Class
               398 : OPTICAL COMMUNICATIONS
       398/106
                     REMOTE CONTROL
3
  398/186
               (0 OR, 3 XR)
       Class
               398 : OPTICAL COMMUNICATIONS
       398/182
                    TRANSMITTER
       398/183
                   .Having particular modulation
       398/186
                    .. Intensity modulation
  398/187
               (0 OR, 3 XR)
       Class 398: OPTICAL COMMUNICATIONS
       398/182
                     TRANSMITTER
       398/183
                    .Having particular modulation
       398/187
                    .. Frequency modulation
  398/201
                (1 OR, 2 XR)
               398 : OPTICAL COMMUNICATIONS
       Class
       398/182
                     TRANSMITTER
       398/201
                     .Including specific optical elements
  455/103
                (0 OR, 3 XR)
               455 : TELECOMMUNICATIONS
       Class
       455/91
                     TRANSMITTER
```

.Plural separate transmitters or channels

455/103

09980220 CLSTITLES 455/151.1 (0 OR, 3 XR) 455 : TELECOMMUNICATIONS Class 455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER 455/150.1 .Signal selection based on frequency (e.g., tuning) 455/151.1 .. Remote control of channel or station selection 455/166.2 (1 OR, 2 XR) 455 : TELECOMMUNICATIONS Class 455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER .Signal selection based on frequency (e.g., 455/150.1 tuning) 455/161.1 .. Frequency scanning 455/166.1 ...With channel skipping selection 455/166.2With priority channel selection 455/182.2 (0 OR, 3 XR)455 : TELECOMMUNICATIONS Class 455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER 455/150.1 .Signal selection based on frequency (e.g., tuning) 455/179.1 .. Channel or station selection 455/182.1 ...With frequency control 455/182.2Automatic (AFC) 455/184.1 (1 OR, 2 XR) Class 455 : TELECOMMUNICATIONS 455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER 455/150.1 .Signal selection based on frequency (e.g., tuning) 455/179.1 .. Channel or station selection 455/184.1 ...With comparing desired and existing tuning conditions 455/186.2 (0 OR, 3 XR)Class 455 **:** TELECOMMUNICATIONS 455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER 455/150.1 .Signal selection based on frequency (e.g., tuning) 455/179.1 .. Channel or station selection

...With channel information storage

....With memory control or programming

455/185.1

455/186.1

09980220 CLSTITLES 455/186.2Having a keyboard 455/192.2 3 (0 OR, 3 XR) 455 : TELECOMMUNICATIONS Class 455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER 455/150.1 .Signal selection based on frequency (e.g., tuning) 455/192.1 ..With frequency control 455/192.2 ...Automatic (AFC) 3 455/205 (2 OR, 1 XR) Class 455 **:** TELECOMMUNICATIONS 455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER 455/205 .Frequency or phase modulation 455/212 (1 OR, 2 XR) 455 : TELECOMMUNICATIONS Class 455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER 455/205 .Frequency or phase modulation 455/212 .. With squelch or other audio output silencing 3 455/273 (0 OR, 3 XR) 455 : TELECOMMUNICATIONS Class 455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER 455/269 .With wave collector (e.g., antenna) 455/272 ..Plural separate collectors 455/273 ...With particular output combining 455/502 (0 OR, 3 XR) TELECOMMUNICATIONS Class 455 **:** 455/39 TRANSMITTER AND RECEIVER AT SEPARATE STATIONS 455/500 .Plural transmitters or receivers (i.e., more than two stations) 455/501 .. Noise, distortion, or singing reduction

3 455/517 (1 OR, 2 XR)
Class 455: TELECOMMUNICATIONS
455/39 TRANSMITTER AND RECEIVER AT SEPARATE STATIONS
455/500 .Plural transmitters or receivers (i.e., more than two stations)

... Synchronized stations

455/502

	455/507 455/517	09980220_CLSTITLESCentral station (e.g., master, etc.)To or from mobile station
3		OR, 2 XR) : TELECOMMUNICATIONS TRANSMITTER AND RECEIVER AT SEPARATE STATIONS
	455/63.1	.Distortion, noise, or other interference prevention, reduction, or compensation
3		OR, 3 XR) : TELECOMMUNICATIONS TRANSMITTER AND RECEIVER AT SEPARATE STATIONS
	455/68 455/70	.With control signalReceiver control signal originates at messag
	455/72	<pre>transmitterFor compression and expansion of message signal (i.e., companding)</pre>
3	•	OR, 3 XR) : TELECOMMUNICATIONS TRANSMITTER .Convertible to different type (e.g., AM to FM)
3	600/509 (2 Class 600 600/300 600/481 600/508 600/509	OR, 1 XR) : SURGERY DIAGNOSTIC TESTING .CardiovascularHeartDetecting heartbeat electric signal
3	701/208 (0 Class 701	
	701/200 701/207 701/208	RELATIVE LOCATION NAVIGATION .Employing position determining equipmentFor use in a map data base system
3		OR, 3 XR) : DATA PROCESSING: VEHICLES, NAVIGATION, AND RELATIVE LOCATION
	701/200 701/207 701/213	NAVIGATION .Employing position determining equipment .Using Global Positioning System (GPS)

е

)

```
3 701/215
                   (0 \text{ OR}, 3 \text{ XR})
          Class
                  701 : DATA PROCESSING: VEHICLES, NAVIGATION, AND
                           RELATIVE LOCATION
          701/200
                        NAVIGATION
          701/207
                         .Employing position determining equipment
          701/213
                         .. Using Global Positioning System (GPS)
                         ... Means to improve accuracy of position or
          701/214
                             location
                         .... Having multiple GPS antennas or receivers
          701/215
                            (e.g., differential GPS)
  3
    725/41
                    (3 \text{ OR}, 0 \text{ XR})
                  725 : INTERACTIVE VIDEO DISTRIBUTION SYSTEMS
          Class
          725/37
                         OPERATOR INTERFACE
          725/38
                         .To facilitate tuning or selection of video
                               signal
                         .. Electronic program guide
          725/39
          725/40
                         ... For displaying additional information
          725/41
                         ....Video still or clip
 2 235/380
                   (0 OR, 2 XR)
                  235 : REGISTERS
          Class
          235/375
                        SYSTEMS CONTROLLED BY DATA BEARING RECORDS
          235/380
                        .Credit or identification card systems
 2
    324/334
                   (2 OR, 0 XR)
          Class
                  324 : ELECTRICITY:
                                        MEASURING AND TESTING
          324/323
                        OF GEOPHYSICAL SURFACE OR SUBSURFACE IN SITU
          324/332
                         .With radiant energy or nonconductive-type
                             transmitter
          324/334
                         ..With separate pickup
    324/338
                   (0 \text{ OR}, 2 \text{ XR})
                  324 : ELECTRICITY: MEASURING AND TESTING
          Class
          324/323
                        OF GEOPHYSICAL SURFACE OR SUBSURFACE IN SITU
          324/332
                         .With radiant energy or nonconductive-type
                              transmitter
          324/334
                         ..With separate pickup
          324/338
                         ...Within a borehole
 2
    332/100
                   (1 \text{ OR}, 1 \text{ XR})
                  332 : MODULATORS
          Class
          332/100
                        FREQUENCY SHIFT KEYING MODULATOR OR MINIMUM
                            SHIFT KEYING MODULATOR
. 2
   332/103
                   (0 OR, 2 XR)
          Class
                  332 : MODULATORS
```

AMPLITUDE MODULATOR

PHASE SHIFT KEYING MODULATOR OR QUADRATURE

340/310.02 (1 OR, 1 XR) Class 340 : COMMUNICATIONS: ELECTRICAL 340/286.01 SYSTEMS 340/310.01 .Signal over power line 340/310.02 .. Modulation technique 2 340/518 (0 OR, 2 XR) 340 : COMMUNICATIONS: ELECTRICAL Class CONDITION RESPONSIVE INDICATING SYSTEM 340/500 340/501 .With particular system function (e.g., temperature compensation, calibration) 340/517 .. Selection from a plurality of sensed conditions 340/518 ... Scanning 340/539.16 (2 OR, 0 XR) Class 340 : COMMUNICATIONS: ELECTRICAL 340/500 CONDITION RESPONSIVE INDICATING SYSTEM 340/531 .With particular coupling link 340/539.1 ..Radio 340/539.16 ... Including central station detail 340/7.21 (2 OR, 0 XR) Class 340 : COMMUNICATIONS: ELECTRICAL 340/825 SELECTIVE 340/825.36 .Having indication or alarm (e.g., location indication) 340/7.2 .. Code responsive (i.e., paging)

... Two-way paging

2 340/7.22 (1 OR, 1 XR)

340/7.21

332/103

Class 340: COMMUNICATIONS: ELECTRICAL
340/825 SELECTIVE
340/825.36 Having indication or alarm (e.g., location indication)
..Code responsive (i.e., paging)
340/7.21 ...Two-way paging
340/7.22 ...Acknowledgment of message receipt

2 340/7.41 (2 OR, 0 XR)

Class

340/825 SELECTIVE
340/825.36 .Having indication or alarm (e.g., location indication)
340/7.2 ..Code responsive (i.e., paging)

340 : COMMUNICATIONS: ELECTRICAL

```
09980220 CLSTITLES
        340/7.39
                      ... Programming the receiver
        340/7.41
                      ....Over the air
   340/7.42
                 (0 OR, 2 XR)
                340 : COMMUNICATIONS: ELECTRICAL
        Class
        340/825
                      SELECTIVE
        340/825.36
                      .Having indication or alarm (e.g., location
                           indication)
        340/7.2
                      ..Code responsive (i.e., paging)
        340/7.42
                      ... Frequency scanning for address
2
  340/7.48
                 (0 OR, 2 XR)
                340 : COMMUNICATIONS: ELECTRICAL
        Class
        340/825
                      SELECTIVE
        340/825.36
                      .Having indication or alarm (e.g., location
                             indication)
        340/7.2
                      .. Code responsive (i.e., paging)
        340/7.45
                      ... Addressing format
        340/7.46
                      .... Group call
        340/7.48
                      ..... News information provider (e.g., sports,
                         weather, etc.)
   340/7.49
                 (0 OR, 2 XR)
                340 : COMMUNICATIONS: ELECTRICAL
        Class
        340/825
                      SELECTIVE
        340/825.36
                      .Having indication or alarm (e.g., location
                            indication)
        340/7.2
                      ..Code responsive (i.e., paging)
        340/7.45
                      ... Addressing format
        340/7.49
                      .... Tone code (i.e., frequency code)
  340/7.55
                 (1 OR, 1 XR)
                340 : COMMUNICATIONS: ELECTRICAL
        Class
        340/825
                      SELECTIVE
        340/825.36
                      .Having indication or alarm (e.g., location
                            indication)
        340/7.2
                      .. Code responsive (i.e., paging)
        340/7.51
                      ... Message presentation
        340/7.55
                      ....Display
2 340/825.22
                (0 OR, 2 XR)
        Class
                340 : COMMUNICATIONS: ELECTRICAL
        340/825
                      SELECTIVE
        340/825.22
                     .Program control
2 340/825.25
                (2 OR, 0 XR)
                340 : COMMUNICATIONS: ELECTRICAL
        Class
        340/825
                      SELECTIVE
```

09980220 CLSTITLES 340/825.25 .Audio system (e.g., by pulse signal) (0 OR, 2 XR) 340/825.62 Class 340 : COMMUNICATIONS: ELECTRICAL 340/825 SELECTIVE .Pulse responsive actuation 340/825.57 340/825.62 ..Serial 340/825.73 (0 OR, 2 XR) Class 340 : COMMUNICATIONS: ELECTRICAL 340/825 SELECTIVE 340/825.71 .Frequency responsive actuation 340/825.73 ..Plural frequencies 340/870.11 (2 OR, 0 XR) 340 : COMMUNICATIONS: ELECTRICAL 340/870.01 CONTINUOUSLY VARIABLE INDICATING (E.G., TELEMETERING) 340/870.11 .Plural transmitters 340/870.17 (2 OR, 0 XR) 340 : COMMUNICATIONS: ELECTRICAL Class 340/870.01 CONTINUOUSLY VARIABLE INDICATING (E.G., TELEMETERING) 340/870.16 .Condition responsive .Temperature 340/870.41 (0 OR, 2 XR) 340 : COMMUNICATIONS: ELECTRICAL 340/870.01 CONTINUOUSLY VARIABLE INDICATING (E.G., TELEMETERING) 340/870.4 .With particular receiver (e.g., ratiometer) 340/870.41 ..Plural receivers 340/905 (0 OR, 2 XR) Class 340 : COMMUNICATIONS: ELECTRICAL 340/901 EXTERNAL CONDITION VEHICLE-MOUNTED INDICATOR O ALARM 340/905 .Highway information (e.g., weather, speed limits, etc.) 340/989 (0 OR, 2 XR) Class 340 : COMMUNICATIONS: ELECTRICAL

VEHICLE POSITION INI
.At remote location 340/989

2 340/990 (0 OR, 2 XR)

340/988

R

Page 18

VEHICLE POSITION INDICATION

	Class 340/988 340/989 340/990		09980220_CLSTITLES : COMMUNICATIONS: ELECTRICAL VEHICLE POSITION INDICATION .At remote locationWith map display
2	341/174 Class 341/173 341/174	341	: CODED DATA GENERATION OR CONVERSION CODE GENERATOR OR TRANSMITTER
2	342/122 Class 342/118 342/120 342/122	342	: COMMUNICATIONS: DIRECTIVE RADIO WAVE SYSTEMS AND DEVICES DETERMINING DISTANCE .Altimeter
2	342/25F Class 342/25R 342/25A 342/25F	342	: COMMUNICATIONS: DIRECTIVE RADIO WAVE SYSTEMS AND DEVICES SYNTHETIC APERTURE RADAR .Mapping or imaging using synthetic aperture radarParticular SAR processing techniques (e.g.
spot	light mode,		squint mode, doppler beam-sharpening mode,
or co	giio inodo,		bistatic SAR, inverse SAR)
2	,	342	: COMMUNICATIONS: DIRECTIVE RADIO WAVE SYSTEMS AND DEVICES
2	342/357.06 Class 342/350 342/352 342/357. 342/357.	342	
2	342/357.1 Class 342/350 342/352 342/357.	342	OR, 1 XR) : COMMUNICATIONS: DIRECTIVE RADIO WAVE SYSTEMS AND DEVICES DIRECTIVE .Including a satelliteWith position indicating

	342/357.06	09980220_CLSTITLESUsing Global Positioning Satellite (GPS or
	,	Glonass)
	342/357.1	Combined with telecommunication
2	342/42 (2 Class 342	OR, 0 XR) : COMMUNICATIONS: DIRECTIVE RADIO WAVE SYSTEMS AND DEVICES
	342/42	RADAR TRANSPONDER SYSTEM
2	,	: TELEVISION
	348/468	.Including teletext decoder or display
2		: TELEVISION BASIC RECEIVER WITH ADDITIONAL FUNCTION
	348/555	<pre>For receiving more than one format at will (e.g., NTSC/PAL)</pre>
2		: TELEVISION RECEIVER CIRCUITRY
iver		
2,	360/72.1 (0 Class 360	
	360/69 360/71 360/72.1	AUTOMATIC CONTROL OF A RECORDER MECHANISM .Controlling the recordLocating specific areas
2		OR, 2 XR) : MULTIPLEX COMMUNICATIONS GENERALIZED ORTHOGONAL OR SPECIAL MATHEMATICAL TECHNIQUES
	370/208	.Particular set of orthogonal functions
2		OR, 2 XR) : MULTIPLEX COMMUNICATIONS SPECIAL SERVICES .Distribution of signal to multiple agent

09980220_CLSTITLES stations

2	370/276	370	: MULTIPLEX COMMUNICATIONS DUPLEX .Communication over free space
2		370	: MULTIPLEX COMMUNICATIONS COMMUNICATION OVER FREE SPACE
2 e	Class	370	: MULTIPLEX COMMUNICATIONS COMMUNICATION OVER FREE SPACE
C			word channels using multiple access techniq
ues	(e.g., CDMA)		•
		370	: MULTIPLEX COMMUNICATIONS COMMUNICATION OVER FREE SPACE
е	370/349		channels Using messages having an address field as header
2		370	: MULTIPLEX COMMUNICATIONS CHANNEL ASSIGNMENT TECHNIQUES
2	370/480 Class 370/473		OR, 1 XR) : MULTIPLEX COMMUNICATIONSTransmission of a single message having multiple packets
	370/480		.Combining or distributing information via frequency channels
2	370/486 Class 370/473		OR, 1 XR) : MULTIPLEX COMMUNICATIONSTransmission of a single message having multiple packets
	370/480		.Combining or distributing information via

09980220 CLSTITLES frequency channels ... Subscriber carrier 370/485 ...Program distribution 370/486 2 370/491 (0 OR, 2 XR) 370 : MULTIPLEX COMMUNICATIONS Class ..Transmission of a single message having 370/473 multiple packets .Combining or distributing information via 370/480 frequency channels 370/491 ..Pilot 2 370/503 (0 OR, 2 XR) Class 370 : MULTIPLEX COMMUNICATIONS 370/473 .. Transmission of a single message having multiple packets .Combining or distributing information via tim 370/498 е channels 370/503 ... Synchronizing 2 370/509 (0 OR, 2 XR) Class 370 : MULTIPLEX COMMUNICATIONS 370/473 .. Transmission of a single message having multiple packets 370/498 .Combining or distributing information via tim е channels 370/503 ...Synchronizing 370/509 ... Using synchronization information contained in a frame 370/529 (1 OR, 1 XR) 370 : MULTIPLEX COMMUNICATIONS 370/473 ..Transmission of a single message having multiple packets 370/498 .Combining or distributing information via tim е channels 370/529 .. Information superimposed on other informatio n 2 372/28 (0 OR, 2 XR) 372 : COHERENT LIGHT GENERATORS Class 372/9 PARTICULAR BEAM CONTROL DEVICE

.Modulation

.. Frequency

372/26

372/28

```
2 372/46 (0 OR, 2 XR)
Class 372 : COHERENT LIGHT GENERATORS
       372/39
                     PARTICULAR ACTIVE MEDIA
                    .Semiconductor
       372/43
                    ..Injection
       372/44
       372/46
                     ...Particular current control structure
  375/131
               (1 \text{ OR}, 1 \text{ XR})
       Class
               375 : PULSE OR DIGITAL COMMUNICATIONS
       375/130
                     SPREAD SPECTRUM
       375/131
                    .Hybrid form
  375/240
               (1 OR, 1 XR)
       Class
               375 : PULSE OR DIGITAL COMMUNICATIONS
                     BANDWIDTH REDUCTION OR EXPANSION
       375/240
  375/257
               (0 OR, 2 XR)
       Class 375: PULSE OR DIGITAL COMMUNICATIONS
                     CABLE SYSTEMS AND COMPONENTS
       375/257
2 375/275
                (0 OR, 2 XR)
       Class
               375 : PULSE OR DIGITAL COMMUNICATIONS
                     SYSTEMS USING ALTERNATING OR PULSATING CURRENT
       375/259
       375/271
                    .Angle modulation
       375/272
                     .. Frequency shift keying
       375/275
                     ... More than two frequencies
2 375/295
               (1 OR, 1 XR)
       Class
               375 : PULSE OR DIGITAL COMMUNICATIONS
       375/295
                     TRANSMITTERS
2
  375/302
               (0 OR, 2 XR)
               375 : PULSE OR DIGITAL COMMUNICATIONS
       375/295
                     TRANSMITTERS
       375/302
                    .Angle modulation
  375/303
                (0 OR, 2 XR)
               375 : PULSE OR DIGITAL COMMUNICATIONS
       Class
       375/295
                     TRANSMITTERS
       375/302
                    .Angle modulation
       375/303
                    .. Frequency shift keying
 375/308
                (1 OR, 1 XR)
       Class
               375 : PULSE OR DIGITAL COMMUNICATIONS
       375/295
                    TRANSMITTERS
       375/302
                   .Angle modulation
```

..Phase shift keying 375/308 (0 OR, 2 XR) 375/327 Class 375 : PULSE OR DIGITAL COMMUNICATIONS RECEIVERS 375/316 .Angle modulation 375/322 375/324 ..Particular demodulator 375/327 ... Phase locked loop 2 375/331 (0 OR, 2 XR) 375 : PULSE OR DIGITAL COMMUNICATIONS Class 375/316 RECEIVERS .Angle modulation 375/322 ..Phase shift keying 375/329 375/330 ...Differential (diphase) More than two phases 375/331 375/333 (0 OR, 2 XR) Class 375 : PULSE OR DIGITAL COMMUNICATIONS 375/316 RECEIVERS 375/322 .Angle modulation .. Phase shift keying 375/329 375/333 ...Biphase (manchester code) 2 375/334 (1 OR, 1 XR) 375 : PULSE OR DIGITAL COMMUNICATIONS Class 375/316 RECEIVERS 375/322 .Angle modulation 375/334 .. Frequency shift keying 2 375/336 (0 OR, 2 XR) Class 375 : PULSE OR DIGITAL COMMUNICATIONS 375/316 RECEIVERS 375/322 .Angle modulation 375/334 .. Frequency shift keying 375/336 ...Minimum shift keying 375/340 (0 OR, 2 XR) 375 : PULSE OR DIGITAL COMMUNICATIONS Class 375/316 RECEIVERS 375/340 .Particular pulse demodulator or detector 2 375/345 (0 OR, 2 XR) Class 375 : PULSE OR DIGITAL COMMUNICATIONS 375/316 RECEIVERS 375/345 .Automatic gain control

2 375/347 (0 OR, 2 XR)

09980220 CLSTITLES 375 : PULSE OR DIGITAL COMMUNICATIONS Class 375/316 RECEIVERS .Interference or noise reduction 375/346 375/347 ..Diversity (frequency or time) 2 375/371 (0 OR, 2 XR) 375 : PULSE OR DIGITAL COMMUNICATIONS Class 375/354 SYNCHRONIZERS 375/371 .Phase displacement, slip or jitter correction 2 375/373 (0 OR, 2 XR) 375 : PULSE OR DIGITAL COMMUNICATIONS Class 375/354 SYNCHRONIZERS 375/371 .Phase displacement, slip or jitter correction 375/373 .. Phase locking 379/93.28 (0 OR, 2 XR) Class 379 : TELEPHONIC COMMUNICATIONS 379/90.01 TELEPHONE LINE OR SYSTEM COMBINED WITH DIVERSE ELECTRICAL SYSTEM OR SIGNALLING (E.G., C OMPOSITE) 379/93.01 .Having transmission of a digital message signal over a telephone line 379/93.26 .. By voice frequency signal (e.g., tone code) 379/93.28 ... Modulated audio tone 380/223 (2 OR, 0 XR) Class 380 : CRYPTOGRAPHY 380/200 VIDEO CRYPTOGRAPHY 380/210 .Video electric signal modification (e.g., scrambling) 380/221 .. By modifying synchronizing signal 380/223 ... Key signal on separate carrier 380/269 (0 OR, 2 XR) Class 380 : CRYPTOGRAPHY 380/255 COMMUNICATION SYSTEM USING CRYPTOGRAPHY 380/269 .Having compression 381/2 (0 OR, 2 XR) Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS

BINAURAL AND STEREOPHONIC

.Broadcast or multiplex stereo

AND DEVICES

381/1

381/2

```
09980220 CLSTITLES
2 381/4
                 (1 OR, 1 XR)
                381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS
        Class
                        AND DEVICES
                      BINAURAL AND STEREOPHONIC
        381/1
                      .Broadcast or multiplex stereo
        381/2
                      ..FM final modulation
        381/3
                      ... AM subcarrier
        381/4
   386/105
                 (2 \text{ OR}, 0 \text{ XR})
                386 : TELEVISION SIGNAL PROCESSING FOR DYNAMIC
        Class
                        RECORDING OR REPRODUCING
                      PROCESSING OF TELEVISION SIGNAL FOR DYNAMIC
        386/46
                             RECORDING OR REPRODUCING
                      .Having another signal
        386/95
                      .. Audio signal
        386/96
                      ...Digital audio signal
        386/104
                      ....Disc
        386/105
2
  398/66
                 (0 OR, 2 XR)
        Class 398: OPTICAL COMMUNICATIONS
        398/43
                      MULTIPLEX
        398/66
                      .Broadcast and distribution system
  398/90
                 (1 OR, 1 XR)
        Class
                398 : OPTICAL COMMUNICATIONS
        398/43
                      MULTIPLEX
        398/79
                      .Wavelength division or frequency division
                           (e.g., Raman, Brillouin, etc.)
        398/90
                      .. Electrically controlled single source
2
   455/132
                 (0 OR, 2 XR)
                455 : TELECOMMUNICATIONS
        Class
                      RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY
        455/130
                          CONVERTER
        455/132
                     .Plural receivers
2
                 (0 OR, 2 XR)
   455/142
                455 : TELECOMMUNICATIONS
        Class
        455/130
                      RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY
                          CONVERTER
        455/142
                     .Convertible to different type (e.g., AM to FM
   455/154.2
                 (1 \text{ OR}, 1 \text{ XR})
                455 : TELECOMMUNICATIONS
        455/130
                      RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY
                            CONVERTER
```

)

	455/150.1 455/154.1 455/154.2	09980220 CLSTITLES .Signal selection based on frequency (e.g., tuning)With indication of frequency, channel, or selector condition (e.g., tuning aid)Scanning display
2	455/158.2 (0 Class 455 455/130 455/150.1 455/154.1 455/158.2	
2	455/166.1 (1 Class 455 455/130 455/150.1 455/161.1 455/166.1	: TELECOMMUNICATIONS
2	455/185.1 (1 Class 455 455/130 455 455/150.1 455/179.1 455/185.1	: TELECOMMUNICATIONS RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER .Signal selection based on frequency (e.g., tuning)
2	455/194.1 (1 Class 455 455/130 455/150.1 455/194.1	OR, 1 XR) : TELECOMMUNICATIONS RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER .Signal selection based on frequency (e.g., tuning)With muting (e.g., silent tuning)
2	455/200.1 (0 Class 455 455/130 455/150.1	OR, 2 XR) : TELECOMMUNICATIONS RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER .Signal selection based on frequency (e.g.,

tuning)

455/200.1 ..With other control (e.g., volume, gain, bandwidth, etc.)

2 455/208 (0 OR, 2 XR)

Class 455: TELECOMMUNICATIONS

455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER

455/205 .Frequency or phase modulation

455/208 ..With synchronized or controlled local

oscillator

2 455/214 (0 OR, 2 XR)

Class 455: TELECOMMUNICATIONS

455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER

455/205 .Frequency or phase modulation

455/214 ..With particular discriminator or detector

2 455/222 (0 OR, 2 XR)

Class 455: TELECOMMUNICATIONS

455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY

CONVERTER

455/218 .Squelch

455/222 ..Noise controlled

2 455/223 (0 OR, 2 XR)

Class 455: TELECOMMUNICATIONS

455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY

CONVERTER

455/218 .Squelch

455/222 ..Noise controlled

455/223 ...Short duration (noise blankers)

2 455/276.1 (0 OR, 2 XR)

Class 455: TELECOMMUNICATIONS

455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY

CONVERTER

455/269 .With wave collector (e.g., antenna)

455/272 ..Plural separate collectors

455/276.1 ...With phase shifting, correcting, or

regulating in the output path of one or mor

e collectors

2 455/296 (0 OR, 2 XR)

Class 455: TELECOMMUNICATIONS

455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER

	455/296	09980220_CLSTITLES .Noise or interference elimination
2	455/3.01	OR, 1 XR) : TELECOMMUNICATIONS WIRELESS DISTRIBUTION SYSTEM .Receiver for satellite broadcast
2	455/130	: TELECOMMUNICATIONS RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER .Noise or interference elimination
2		OR, 2 XR) : TELECOMMUNICATIONS RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY CONVERTER .Cabinet, housing, or chassis structureSectional or interconnectable (e.g., modules
2		OR, 1 XR) : TELECOMMUNICATIONS TRANSMITTER AND RECEIVER AT SEPARATE STATIONS
2		: TELECOMMUNICATIONS RADIOTELEPHONE SYSTEM
2		OR, 2 XR) : TELECOMMUNICATIONS RADIOTELEPHONE SYSTEM .Zoned or cellular telephone systemSpecific paging technique
2		OR, 2 XR) : TELECOMMUNICATIONS TRANSMITTER AND RECEIVER AT SAME STATION (E.G.
	455/550.1	TRANSCEIVER) .Radiotelephone equipment detail

Page 29

2 455/557 (0 OR, 2 XR)

Class 455: TELECOMMUNICATIONS

455/73 TRANSMITTER AND RECEIVER AT SAME STATION (E.G.

TRANSCEIVER)

455/550.1 .Radiotelephone equipment detail

455/557 .. Interface attached device (e.g., interface

with modem, facsimile, computer, etc.)

2 455/560 (0 OR, 2 XR)

Class 455: TELECOMMUNICATIONS

455/73 TRANSMITTER AND RECEIVER AT SAME STATION (E.G.

TRANSCEIVER)

455/550.1 .Radiotelephone equipment detail

455/560 ... Switching unit detail (e.g., mobile telephon

e switching office (MTSO), base station controller (BSC),

etc.)

2 455/65 (1 OR, 1 XR)

Class 455: TELECOMMUNICATIONS

455/39 TRANSMITTER AND RECEIVER AT SEPARATE STATIONS

455/63.1 .Distortion, noise, or other interference prevention, reduction, or compensation

455/65 ..Anti-multipath

2 455/66.1 (2 OR, 0 XR)

Class 455: TELECOMMUNICATIONS

455/39 TRANSMITTER AND RECEIVER AT SEPARATE STATIONS

455/66.1 .Having diverse art device

2 455/67.14 (1 OR, 1 XR)

Class 455: TELECOMMUNICATIONS

455/39 TRANSMITTER AND RECEIVER AT SEPARATE STATIONS

455/67.11 .Having measuring, testing, or monitoring of

system or part

455/67.14 ... Using a test signal

2 455/67.7 (1 OR, 1 XR)

Class 455: TELECOMMUNICATIONS

455/39 TRANSMITTER AND RECEIVER AT SEPARATE STATIONS

455/67.11 .Having measuring, testing, or monitoring of system or part

```
..With indication (e.g., visual or voice
                         signalling, etc.)
   455/75
                 (1 OR, 1 XR)
        Class
                455 : TELECOMMUNICATIONS
                      TRANSMITTER AND RECEIVER AT SAME STATION (E.G.
        455/73
                          TRANSCEIVER)
        455/75
                      .With frequency stabilization (e.g., automatic
                         frequency control)
  600/513
2
                 (2 OR, 0 XR)
                600 : SURGERY
        Class
        600/300
                      DIAGNOSTIC TESTING
        600/481
                      .Cardiovascular
        600/508
                      ..Heart
                      ...Detecting heartbeat electric signal
        600/509
        600/513
                      ....Detecting heartbeat electric signal and
                         diverse cardiovascular characteristic
   600/523
                 (0 OR, 2 XR)
                600 : SURGERY
        Class
        600/300
                      DIAGNOSTIC TESTING
        600/481
                      .Cardiovascular
        600/508
                      ..Heart
        600/509
                      ...Detecting heartbeat electric signal
                      ....Signal display or recording
        600/523
  607/60
                 (0 OR, 2 XR)
        Class
                607 : SURGERY: LIGHT, THERMAL, AND ELECTRICAL
                        APPLICATION
        607/1
                      LIGHT, THERMAL, AND ELECTRICAL APPLICATION
        607/2
                      .Electrical therapeutic systems
        607/60
                      .. Telemetry or communications circuits
  701/202
                 (0 \text{ OR}, 2 \text{ XR})
        Class
                701: DATA PROCESSING: VEHICLES, NAVIGATION, AND
                        RELATIVE LOCATION
        701/200
                      NAVIGATION
        701/201
                      .Determination of travel data based on the
                          start point and destination point
        701/202
                      .. Route pre-planning
  701/206
                 (0 \text{ OR}, 2 \text{ XR})
        Class
                701 : DATA PROCESSING: VEHICLES, NAVIGATION, AND
                        RELATIVE LOCATION
        701/200
                      NAVIGATION
        701/206
                      .Employing way point navigation
```

2	701/209 Class 701/200 701/207 701/208 701/209		OR, 1 XR) : DATA PROCESSING: VEHICLES, NAVIGATION, AND RELATIVE LOCATION NAVIGATION .Employing position determining equipmentFor use in a map data base systemIncluding route searching or determining device
2	701/211 Class 701/200 701/207 701/208 701/211	701	OR, 2 XR) : DATA PROCESSING: VEHICLES, NAVIGATION, AND RELATIVE LOCATION NAVIGATION .Employing position determining equipmentFor use in a map data base systemHaving audio or visual route guidance
2	701/301 Class 701/300 701/301	701	OR, 0 XR) : DATA PROCESSING: VEHICLES, NAVIGATION, AND RELATIVE LOCATION RELATIVE LOCATION .Collision avoidance
2	705/10 Class		OR, 2 XR) : DATA PROCESSING: FINANCIAL, BUSINESS PRACTICE, MANAGEMENT, OR COST/PRICE DETERMIN
ATIO	N 705/1 705/7 705/10		AUTOMATED ELECTRICAL FINANCIAL OR BUSINESS PRACTICE OR MANAGEMENT ARRANGEMENT Operations researchMarket analysis, demand forecasting or surveying
2 ATIO	705/14 Class	(0 705	OR, 2 XR) : DATA PROCESSING: FINANCIAL, BUSINESS PRACTICE, MANAGEMENT, OR COST/PRICE DETERMIN
ATTO	705/1 705/14		AUTOMATED ELECTRICAL FINANCIAL OR BUSINESS PRACTICE OR MANAGEMENT ARRANGEMENT. Distribution or redemption of coupon, or incentive or promotion program
2	708/410 Class 708/100 708/200		OR, 2 XR) : ELECTRICAL COMPUTERS: ARITHMETIC PROCESSING AND CALCULATING ELECTRICAL DIGITAL CALCULATING COMPUTER .Particular function performed

	708/400 708/410		09980220_CLSTITLESTransformWalsh
		(1 709	OR, 1 XR) : ELECTRICAL COMPUTERS AND DIGITAL PROCESSING SYSTEMS: MULTIPLE COMPUTER OR PROCESS COO
RDIN.	ATING 709/200 709/217 709/219		
2	710/33 Class	(1 710	OR, 1 XR) : ELECTRICAL COMPUTERS AND DIGITAL DATA PROCESSING SYSTEMS: INPUT/OUTPUT
	710/1 710/33		INPUT/OUTPUT DATA PROCESSING
2	Class	725	OR, 2 XR) : INTERACTIVE VIDEO DISTRIBUTION SYSTEMS USER-REQUESTED VIDEO PROGRAM SYSTEM .Pay-per-view
2		725	: INTERACTIVE VIDEO DISTRIBUTION SYSTEMS
2	725/142	(0 725	OR, 2 XR) : INTERACTIVE VIDEO DISTRIBUTION SYSTEMS VIDEO DISTRIBUTION SYSTEM WITH LOCAL INTERACTION
2		725	OR, 2 XR) : INTERACTIVE VIDEO DISTRIBUTION SYSTEMS VIDEO DISTRIBUTION SYSTEM COMPONENTS .Receiver (e.g., set-top box)
2	725/31 Class 725/28		OR, 2 XR) : INTERACTIVE VIDEO DISTRIBUTION SYSTEMS .Of specific program (e.g., based on program
	725/31		rating) .With encryption or scrambling of video signal

2 725/43 (0 OR, 2 XR)

	Class	725 : INTERACTIVE VIDEO DISTRIBUTION SYSTEMS
	725/37	OPERATOR INTERFACE
	725/38	.To facilitate tuning or selection of video signal
	725/39	Electronic program guide
	725/40	For displaying additional information
	725/43	With separate window, panel, or screen
2	725/53	(0 OR, 2 XR)
	Class	
	725/37	OPERATOR INTERFACE
	725/38	.To facilitate tuning or selection of video
	·	signal
	725/39	Electronic program guide
	725/53	Searching (e.g., by title or actor's name)

09980220 CLS

Most Frequently Occurring Classifications of Patents Returned From A Search of 09980220 on October 15, 2004

Original Classifications 11 455/186.1 7 455/45 455/3.06 375/222 4 455/161.3 340/7.25 340/825.02 3 348/734 3 370/312 3 375/142 3 375/285 3 386/83 3 398/76 3 455/161.2 3 725/41 2 324/334 2 329/300 2 340/539.16 2 340/7.21 2 340/7.27 2 340/7.41 2 340/825.25 2 340/870.11 340/870.17 2 342/128 2 342/25R 2 342/42 2 370/204 2 370/343 2 372/96 2 375/130 2 375/219 2 375/259 2 375/324 2 380/223 2 380/34 2 386/105 2 455/158.5 2 455/205 2 455/226.1

2

2

455/260

455/66.1 600/509

Same

- 2 600/513
- 2 701/301

Cross-Reference Classifications

- 23 455/186.1
- 20 455/45
- 11 455/161.2
- 7 340/825.72
- 7 455/161.3
- 6 375/344
- 5 340/825.49
- 5 370/343
- 5 375/216
- 5 375/316
- 5 455/154.1
- 5 455/158.4
- 5 455/226.1
- 5 455/67.11
- 5 455/70
- 5 455/73
- 4 340/7.31
- 4 348/461
- 4 348/473
- 4 348/607
- 4 348/725
- 4 375/150
- 4 375/219
- 4 375/296
- 4 455/12.1
- 4 455/134
- 4 455/228
- 4 455/345
- 4 455/503
- 4 455/67.13
- 3 128/903
- 3 340/531
- 3 340/7.25
- 3 340/7.43
- 3 340/825.69
- 3 340/988
- 3 342/457
- 3 348/21
- 3 348/460
- 3 370/483
- 3 370/487
- 3 370/522
- 3 375/260
- 3 375/285

- 375/286
- 3 375/300
- 3 375/346
- 3 375/350
- 3 385/14
- 3 398/186
- 3 398/187
- 3 455/102
- 3
- 455/103
- 3 455/137
- 3 455/151.1
- 3 455/158.5
- 3 455/182.2
- 3 455/186.2
- 3 455/192.2
- 3 455/273
- 3 455/502
- 3 455/72
- 3 455/93
- 3 701/208 3 701/213
- 3 701/215
- 2
- 235/380
- 2 324/338
- 2 332/103
- 2 340/518
- 2 2 340/7.27
- 340/7.42
- 2 340/7.48
- 2 340/7.49
- 2 340/825.22
- 2 340/825.62
- 2 340/825.73
- 2 340/870.41
- 2 340/905
- 2 340/989
- 2 2 340/990
- 341/174
- 2 342/122
- 2 342/25F
- 2 342/357.06
- 2 348/484
- 348/569
- 2 348/734
- 2 360/72.1
- 2 370/204
- 2 370/208
- 370/270

- 2 370/281
- 2 370/342
- 2 370/349
- 2 370/350
- 2 370/432
- 2
- 370/475
- 2 370/491
- 2 370/503
- 2 2 370/509
- 372/28
- 2 372/46
- 2 375/257
- 2 375/275
- 2 375/302
- 375/303
- 375/327
- 2 2 2
- 375/331
- 375/333
- 2 2 2 375/336
- 375/340
- 375/345
- 375/347
- 2 2 2 2 375/371 375/373
- 2 379/93.28
- 380/269
- 2 2 2 380/34
- 381/2
- 2 398/106
- 2 398/201
- 2 398/66
- 2 455/132
- 2 455/142
- 2 455/158.2
- 2 455/166.2
- 455/184.1
- 2 2
- 455/200.1 2
- 455/208 2 455/212
- 2 455/214
- 2 455/222 2 455/223
- 2 455/260
- 2 455/276.1
- 2 455/296
- 2 455/310
- 455/349
- 455/458

- 455/517 2
- 2 455/550.1
- 2 455/557
- 2 455/560
- 455/63.1
- 2 600/523
- 2 607/60
- 2 701/202
- 2 701/206
- 2 701/211
- 2 705/10
- 2 705/14
- 2 708/410
- 2 725/104
- 2 725/108
- 2 725/142
- 2 725/151
- 2 725/31
- 2 725/43
- 2 725/53

Combined Classifications

- 34 455/186.1
- 27 455/45
- 14 455/161.2
- 11 455/161.3
- 7 340/825.72
- 7 370/343
- 7 455/226.1
- 7 455/3.06
- 340/7.25
- 375/216
- 6 375/219
- 6 375/285
- 375/316 6
- 6 375/344
- 455/67.11 6
- 5 340/825.49
- 5 5 348/473
- 348/607
- 5 348/734
- 5 375/150
- 5 375/222
- 5 375/296
- 5 455/154.1
- 455/158.4
- 5 5 455/158.5
- 455/228

- 5 455/70
- 5 455/73
- 4 340/7.27
- 4 340/7.31
- 4 340/825.02
- 4 348/21
- 4 348/461
- 4 348/725
- 4 370/204
- 4 370/312
- 4
- 370/487
- 4 370/522
- 4 375/286
- 4 375/346
- 4 380/34
- 4 398/76
- 455/102
- 4 455/12.1
- 4
- 455/134
- 4 455/137
- 4 455/260
- 4 455/345
- 4 455/503
- 4 455/67.13
- 3 128/903
- 3 329/300
- 3 340/531
- 3 340/7.43
- 3 340/825.69
- 3 340/988
- 3 342/128
- 3 342/457
- 3 348/460
- 3 348/484
- 3 348/569
- 3 370/350
- 3 370/475
- 3 370/483
- 3 372/96
- 3 375/130
- 3 375/142
- 3 375/259
- 3 375/260
- 3 375/300
- 3 375/324
- 3 375/350
- 3 385/14
- 386/83

- 3 398/106
- 3 398/186
- 3 398/187
- 3 398/201
- 3 455/103
- 3 455/151.1
- 3
- 455/166.2
- 3 455/182.2
- 3 455/184.1
- 3 455/186.2
- 3 455/192.2
- 3 455/205
- 455/212
- 3 3
- 455/273
- 3 455/502
- 3 455/517
- 3 455/63.1
- 3 455/72
- 3 455/93
- 3 600/509
- 3 701/208
- 3 701/213
- 701/215
- 3 3 725/41
- 2 235/380
- 2 324/334
- 2
- 324/338
- 2 332/100
- 2 332/103 2 340/310.02
- 2 340/518
- 2 340/539.16
- 2 340/7.21
- 2 340/7.22
- 2 340/7.41
- 2 340/7.42
- 2 340/7.48
- 2
- 340/7.49
- 2 340/7.55
- 2 340/825.22
- 2 340/825.25
- 2 340/825.62
- 2 340/825.73
- 2 340/870.11
- 2 340/870.17
- 2 340/870.41
- 2 340/905
- 340/989

- 2 340/990
- 2 341/174
- 2 342/122
- 2 342/25F
- 2 342/25R
- 2 342/357.06
- 2 342/357.1
- 2 342/42
- 2 348/468
- 348/555
- 2 2 348/729
- 2 360/72.1
- 2 370/208
- 2 370/270
- 2 370/281
- 370/313 2
- 370/342 2
- 370/349
- 2 370/432
- 2 370/480
- 370/486
- 2 370/491
- 2 370/503
- 2 370/509
- 2 370/529
- 2 372/28
- 2 372/46
- 2 375/131
- 2 375/240
- 375/257
- 2 375/275
- 2 375/295
- 2 375/302
- 375/303
- 2 375/308
- 2 375/327
- 2 375/331
- 375/333
- 2 375/334
- 2 375/336
- 2 375/340
- 2 375/345
- 2 375/347
- 2 375/371
- 2 375/373
- 2 379/93.28
- 2 380/223
- 2 380/269

09980220 CLS

- 2 381/2
- 2 381/4
- 2 386/105
- 2 398/66
- 2 398/90
- 2 455/132
- 2 455/142
- 2 455/154.2
- 2 2 455/158.2
- 455/166.1
- 2 455/185.1
- 2 455/194.1
- 2 455/200.1
- 455/208
- 2 455/214
- 2 455/222
- 455/223
- 2 455/276.1
- 2 455/296
- 2 455/3.02
- 2 455/310
- 2 455/349
- 455/39
- 2 455/411
- 2 455/458
- 2 455/550.1
- 2 2 455/557
- 455/560
- 455/65
- 2 455/66.1
- 2 455/67.14
- 455/67.7
- 2 2 455/75
- 2 600/513
- 2 600/523
- 2 607/60
- 2 701/202
- 2 701/206
- 2 701/209
- 2 701/211
- 701/301
- 2 705/10
- 2 705/14
- 2 708/410
- 2 2 709/219
- 710/33
- 2 725/104
- 2 725/108

- 725/142 725/151 725/31 725/43 725/53

- 2 2 2 2 2

PLUS Search Results for S/N 09980220, Searched October 15, 2004

The Patent Linguistics Utility System (PLUS) is a USPTO automated sear ch

system for U.S. Patents from 1971 to the present. PLUS is a query-by-example search system which produces a list of patents that a re

most closely related linguistically to the application searched. This search was prepared by the staff of the Scientific and Technical Information Center, SIRA.

```
5355526
         5668946
                   6141536
                             5778882
                                       5617871
                                                4583090
6711390
                             5850610
                                      5734676
         5732324
                   6300880
                                                4605925
5581576
         5768680
                   5584051
                             5990928
                                      5742641
                                                4611206
5757782
         5898732
                   5515372
                             6002444
                                      5751114
                                                4625332
6661292
         5912917
                   5749048
                             6045042
                                      5761259
                                                4761644
5442646
                   4989263
         5956624
                             6094159
                                      5801790
                                                4775995
5881365
         5956629
                   5065452
                             6095985
                                      5923378
                                                4779129
6088577
         6002450
                   5181208
                             6192032
                                       6023306
                                                4780910
5745503
         6052388
                   5214792
                             6195501
                                      6046781
                                                4788543
5491838
         6128390
                   5239697
                             6199206
                                       6072421
                                                4821120
5564073
         6201837
                   5303399
                             6287765
                                       6081361
                                                4823390
5577266
         6243427
                   5393713
                             5963563
                                      6111910
                                                4835792
5579537
         6252544
                   5436591
                             4310854
                                       6118824
                                                4839645
5602580
         6278499
                   5457816
                             4833548
                                      6150951
                                                4845684
5625416
         6298218
                   5471662
                             4839746
                                      6185260
                                                4852122
5812937
         6347071
                   5497372
                             4984296
                                      6236848
                                                4857840
5608732
         6377566
                   5513385
                             5592449
                                      3699254
                                                H000678
5487177
         6462264
                   5572194
                             5787226
                                      3851191
                                                4866431
6018648
                   5577048
         6484011
                             5956373
                                      3801911
                                                4868558
6539212
         6504580
                   5732338
                             5991832
                                      4053834
                                                4868562
6754477
         6122514
                   5732340
                             6064441
                                      4169993
                                                4868860
5535442
         5742638
                   5745845
                             6070123
                                      4072946
                                                4870410
6405132
         4792946
                   5815170
                             5898910
                                      4246580
                                                4875039
5507024
         4912472
                   5842119
                             5949796
                                      4286334
                                                4876538
5477228
         5283536
                   6038434
                             6246698
                                      4298871
                                                4878051
5483690
         5420923
                   6064439
                             4550444
                                      4299360
                                                4881073
6370475
         5504782
                   6067447
                             4852086
                                      4313227
                                                4882552
6477386
         5802079
                   6363063
                             5014063
                                      4325065
                                                4887311
6704554
         5815529
                   6374177
                             5390348
                                      4343042
                                                4893349
5303393
         5828954
                   6411800
                             6057877
                                      4351062
                                                4897835
5333155
         5956318
                   6658232
                             4438524
                                      4367548
                                                4904950
4427995
         6312393
                   6246672
                             4523184
                                      4378534
                                                4905253
5745525
         6423001
                   6463469
                             4558454
                                      4387455
                                                4905270
5903598
         5303401
                   5778198
                             4757519
                                      4412349
                                                4907217
5949813
         5493709
                   4582956
                             4817192
                                      4415771
                                                4908833
```

		09980220 LIST			
6014407	6169773	4598360	4955083	$4\overline{4}46461$	4910470
4379947	4862513	4271467	4958645	4447909	4918437
4476577	5193214	4291371	5204876	4459699	4938229
4476573	5222254	4535333	5235614	4467140	4941208
4515167	5345602	4796019	5311176	4511887	4953156
4517562	5390343	4972435	5325127	4513415	4959827
4566464	5428827	4974259	5381798	4518822	4968978
4857915	5475874	5289277	5400165	4539565	4968968
4894714	5594799	5349625	5428610	4539524	4968966
4901351	5636249	5440301	5444737	4564862	RE33458
4939780	5666660	5523796	5467367	4567588	4977399
4954996	5740519	5524008	5493583	4574247	4989200
4956864	5903617	5557422	5533056	4574163	5004999
5046093	6018313	5710601	5550865	4575712	5006721
5428400	6134426	5765055	5583819	4577153	5010585